AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1. (Currently amended) A method of determining a corresponding image for a reference image, the corresponding image determined from an image sequence of a moving object by means of a first and a second motion signal, in which

the first and the second motion ~~signal~~ signals represent the respective variation in time of the states of motion of a first motion and a second motion of the object, ~~the first and second motion signals being generated by a first type of device,~~

the image sequence ~~represents~~ comprises a sequence of images of the object acquired from an imaging device during the first motion of the object ~~as a sequence of images of states of motion~~, ~~the image sequence being generated by a second type of device,~~ each image of the image sequence being acquired at an acquisition instant concurrently with a point of the first motion signal,

the reference image comprises an image of the object acquired from an imaging device during ~~represents a state of motion from~~ the second object motion~~, and is acquired~~ at a reference instant ~~during the second motion of the object~~ and concurrently with a point of the second motion signal, the method including the following steps:

a. examining the first and the second motion signal for similarities to determine a similarity function,

b. calculating a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to ~~the acquisition instant of~~ the reference instant ~~image from the second motion signal~~, and

c. defining the corresponding image by identification of an image of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant,

wherein the corresponding image represents at least approximately that state of motion of the moving object which is represented in the reference image, wherein the similarity function is obtained by means of a dynamic time warping method.

2. (Cancelled)

3. (Currently amended) A method as claimed in claim 1, wherein an interpolation image is formed from the corresponding image and a further image from the image sequence, which interpolation image represents ~~at least~~ substantially the state of motion of the object at the correspondence instant.

4. (Currently amended) A method as claimed in claim 1, wherein the first and the second motion signal form an electrocardiographic signal and ~~that~~ the images of the image sequence and the reference image represent states of motion of a human or animal heart.

5. (Previously presented) A method as claimed in claim 4, wherein the blood vessels of the heart are filled at least partly with a contrast medium either in images of the image sequence or in the reference image.

6. (Currently amended) A method as claimed in claim 1, wherein the image sequence forms an X-ray image sequence ~~and/or~~ or the reference image forms an X-ray image.

7. (Currently amended) A method as claimed in claim 1, wherein the image sequence ~~and/or~~ or the reference image forms an ultrasound image.

8. (Currently amended) A system which includes a data processing unit for defining a corresponding image of a moving object for a reference image, the corresponding image determined from an image sequence by means of a first and a second motion signal, ~~the first and second motion signals being generated by a first type of device,~~ the image sequence ~~being generated by a second type of device,~~ comprising a sequence of images of the object acquired by an imaging device, each image of the image sequence being acquired at an acquisition instant concurrently with a point of the first motion signal, the reference image being acquired by an imaging device at a reference instant and concurrently with a point of the second motion signal, the data processing unit being arranged to at least examine the first

and the second motion signal for similarities to determine a similarity function, calculate a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to ~~the acquisition instant of~~ the reference instant ~~image from the second motion signal~~, and define the corresponding image by identification of an image of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant, wherein the corresponding image represents at least approximately that state of motion of the moving object which is represented in the reference image, wherein the similarity function is obtained by means of a dynamic time warping method.

9. (Currently amended) An examination apparatus which includes an X-ray image detector and means for the detection of electrocardiographic signals, which apparatus includes a system with a data processing unit for determining a corresponding image of a moving object for a reference image, the corresponding image determined from an image sequence by means of a first and a second motion signal, ~~the first and second motion signals being generated by a first type of device,~~ the image sequence ~~being generated by a second type of device,~~ comprising a sequence of images of the object acquired by an imaging device, each image of the image sequence being acquired at an acquisition instant concurrently with a point of the first motion signal, the reference image being acquired by an imaging device at a reference instant and concurrently with a point of the second motion signal, the data processing unit being arranged to at least examine the first and the second motion signal for similarities to determine a similarity function, calculate a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to ~~the acquisition instant of~~ the reference instant ~~image from the second motion signal~~, and define the corresponding image by identification of an image of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant, wherein the corresponding image represents at least approximately that state of motion of the moving object which is represented in the reference image, wherein the similarity function is obtained by means of a dynamic time warping method.

10. (Currently amended) A computer readable storage medium having computer instruction for causing a computer to perform the steps of:

examining ~~the~~ first and the second motion ~~signal~~ signals for similarities to determine a similarity function, calculating a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to the acquisition instant of ~~the~~ a reference image ~~from~~ concurrent with a point of the second motion signal, and defining ~~the~~ a corresponding image by identification of an image of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant, ~~the first and second motion signals being generated by a first type of device~~, the image sequence being ~~generated~~ acquired by ~~a second type of~~ an imaging device, wherein the corresponding image represents at least approximately that state of motion of the moving object which is represented in the reference image, wherein the similarity function is obtained by means of a dynamic time warping method.

11. (Previously presented) The method of claim 1, further comprising performing recursion analysis to obtain the similarity function.

12. (Previously presented) The method of claim 1, wherein the similarity function is monotonic.

13. (Previously presented) The system of claim 8, wherein the similarity function is obtained by performing recursion analysis.

14. (Previously presented) The system of claim 8, wherein the similarity function is monotonic.

15. (Previously presented) The apparatus of claim 9, wherein the similarity function is obtained by performing recursion analysis.

16. (Previously presented) The apparatus of claim 9, wherein the similarity function is monotonic.

17. (Previously presented) The storage medium of claim 10, wherein the similarity function is obtained by performing recursion analysis.

18. (Previously presented) The storage medium of claim 10, wherein the similarity function is monotonic.